

GLOBAL WARMING, THE GREENHOUSE EFFECT AND YOUR FAMILY'S CONTRIBUTION

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SUMMER SUNDAYS

<http://www.ecd.bnl.gov/steve>

by far the most terrifying film
you will ever see.

an inconvenient truth

A GLOBAL WARNING

now playing in select theaters

PARTICIPANT

TIME MAGAZINE, APRIL 3, 2006



TIME MAGAZINE, APRIL 3, 2006



www.time.com

CANADA



INDIA



INDIA



NEW ORLEANS



ALASKA



UPSALA GLACIER, ANDES, ARGENTINA

1928



2004



www.time.com

RETREAT OF MID-LATITUDE GLACIERS

South Cascade Glacier, Washington

1928



2000



http://ak.water.usgs.gov/glaciology/south_cascade/1928-2000comparison.htm

PASTERZE GLACIER, AUSTRIA 1875 - 2004



About 2 km shorter.

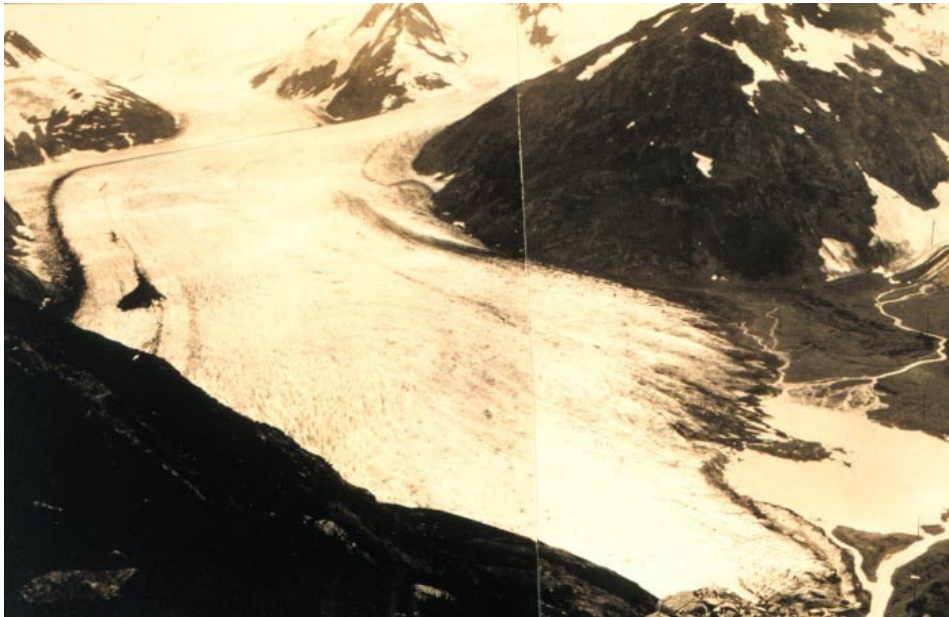
Terminus replaced by artificial lake.

Decrease in length about 15 meters per year.

In 2003, decrease was 30 m in length and 6.5 m in thickness.

<http://www.worldviewofglobalwarming.org/pages/glaciers.html>

PORTAGE GLACIER, ALASKA 1914 - 2004



<http://www.worldviewofglobalwarming.org/pages/glaciers.html>

RHONE GLACIER, VALAIS, SWITZERLAND

1859 - 2001



Glacial retreat is 2.5 km.

Base is 450 meters higher.

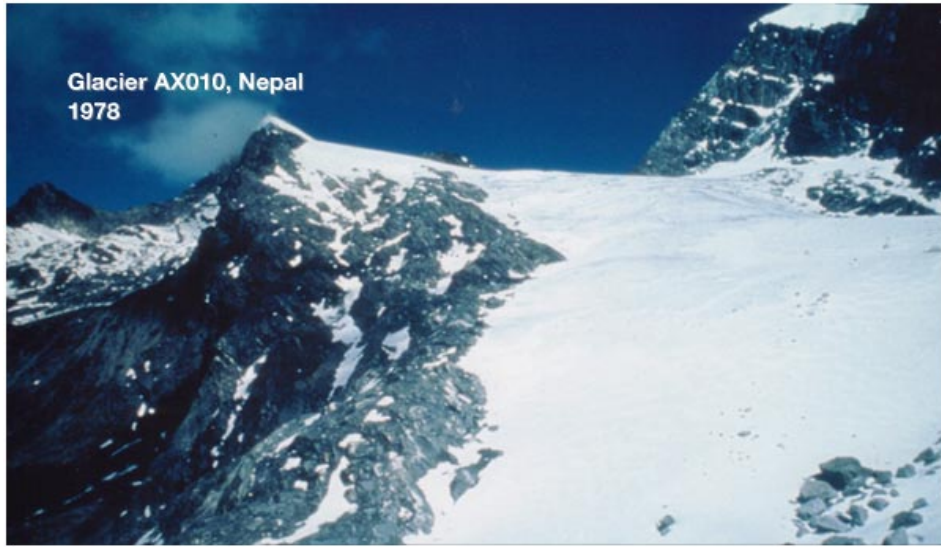
<http://www.worldviewofglobalwarming.org/pages/glaciers.html>

GRINNELL GLACIER GLACIER NATIONAL PARK 1911 - 2000



<http://www.worldviewofglobalwarming.org/pages/glaciers.html>

GLACIER AX010, NEPAL, 1978-2004



<http://snowman.ihis.nagoya-u.ac.jp/download/photo/AX010.html>

FUNAFUTI, TUVALU

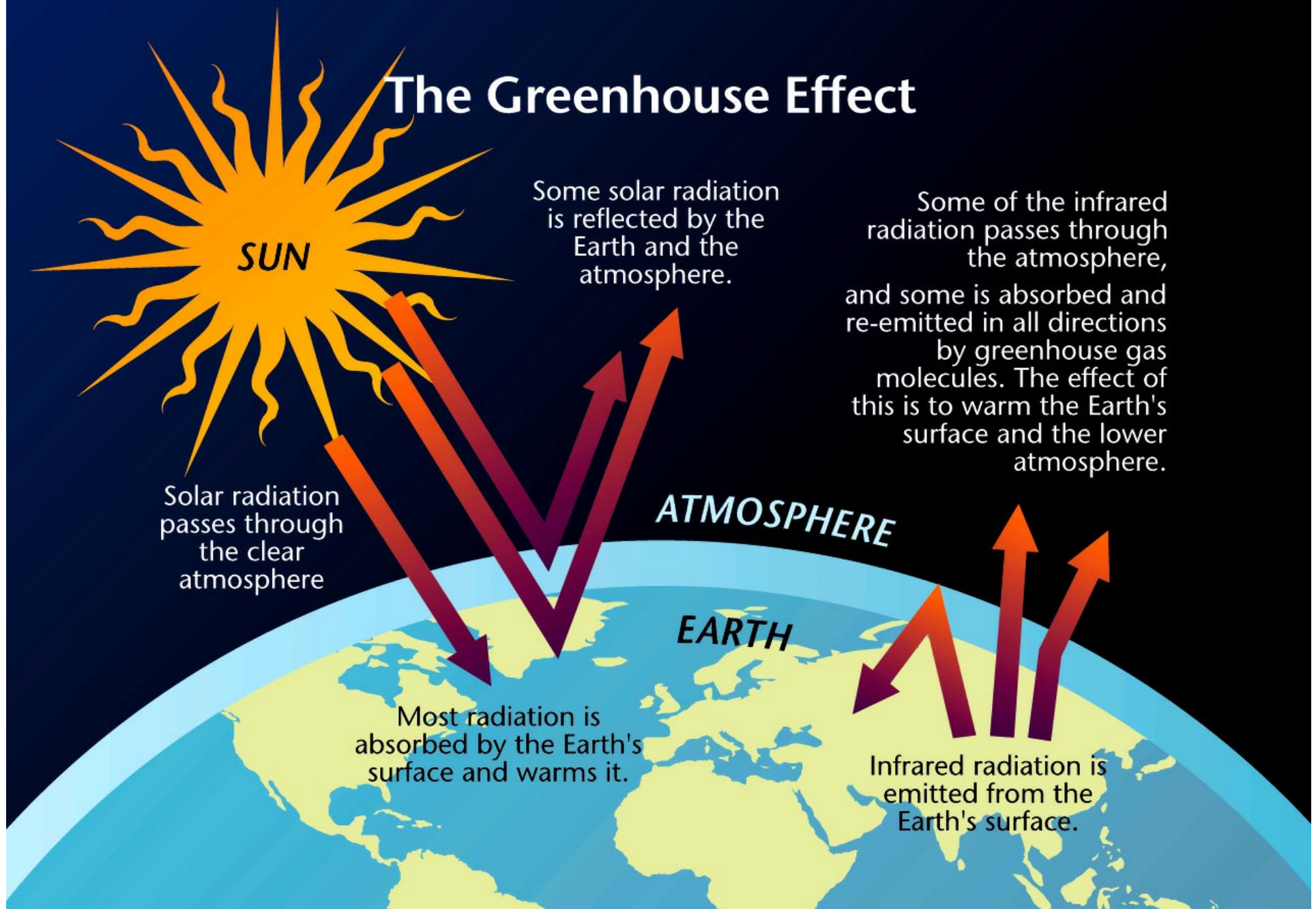


The 11,000 Tuvaluans live on nine coral atolls with typical elevation 2 meters and not exceeding 5 meters.

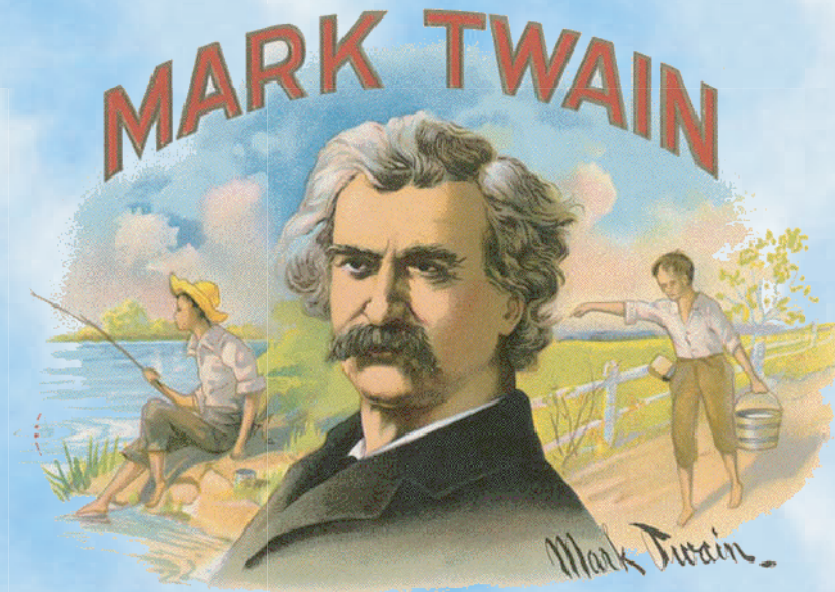
“Our whole culture will have to be transplanted.”

- Paani Laupepa, Former Assistant Environmental Minister
later Assistant Secretary for Foreign Affairs

The Greenhouse Effect

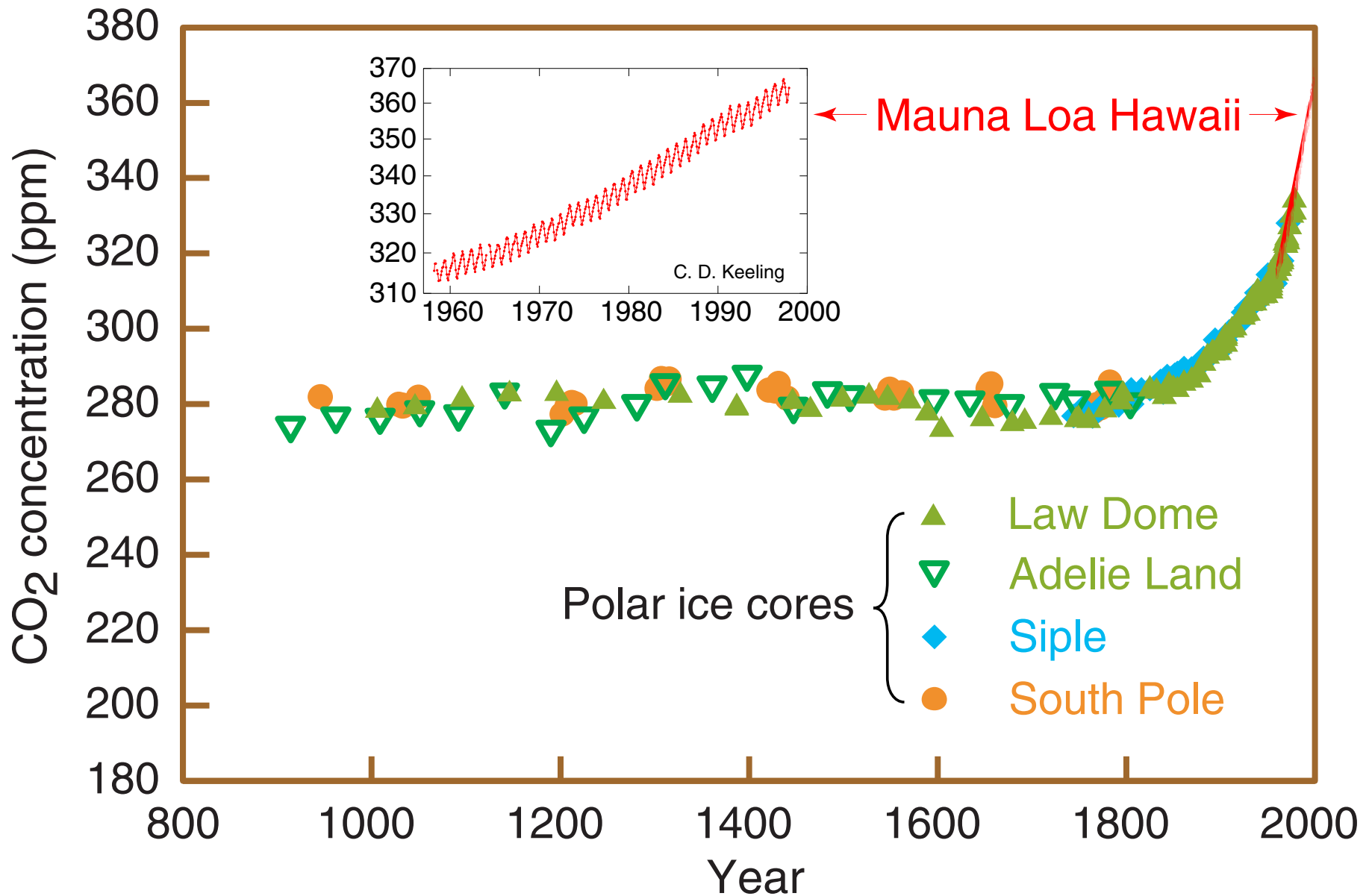


*Everybody talks about the weather —
But nobody does anything about it.*



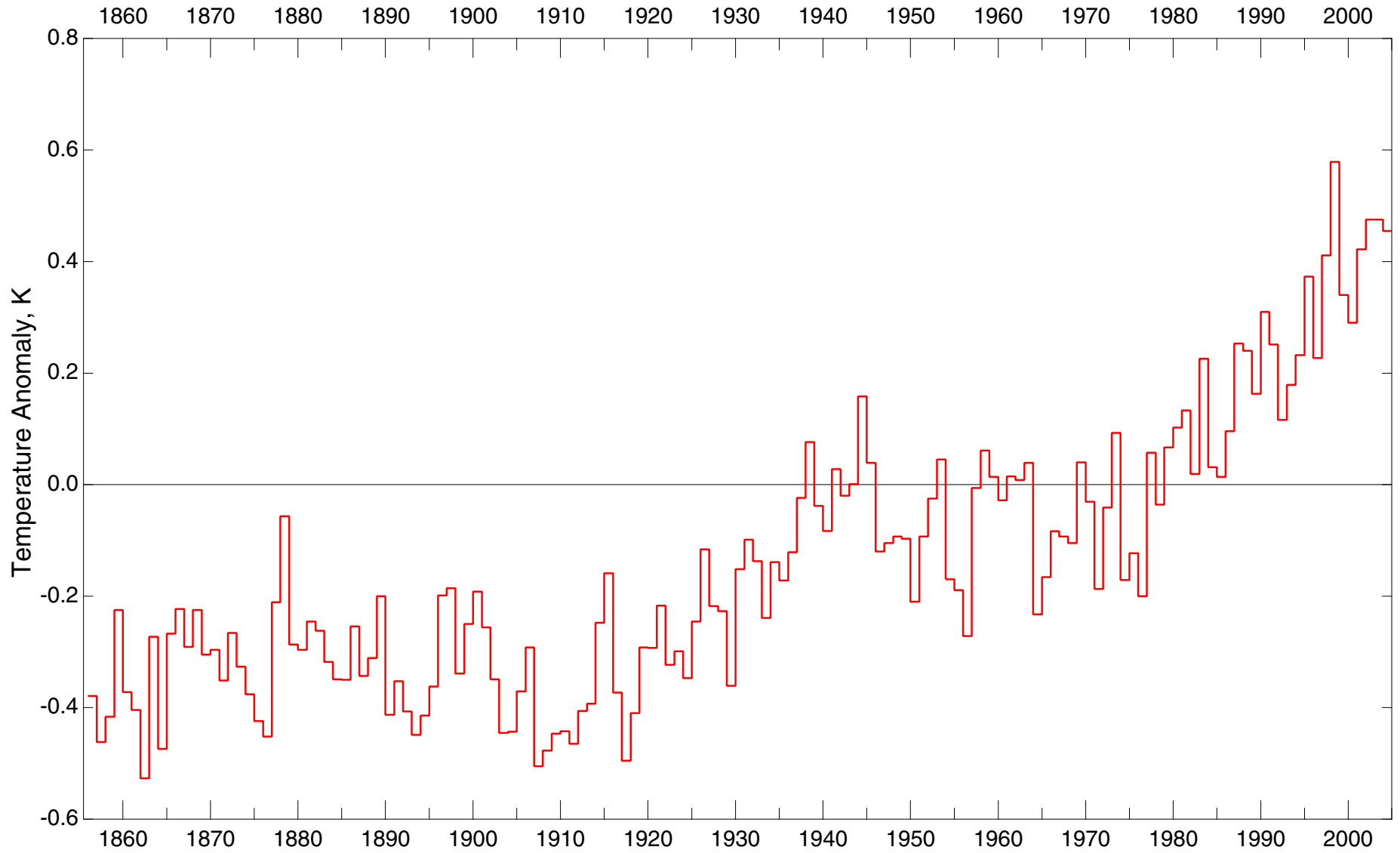
*Now with the greenhouse effect,
we ARE doing something about it.
What are we doing?*

ATMOSPHERIC CARBON DIOXIDE IS INCREASING



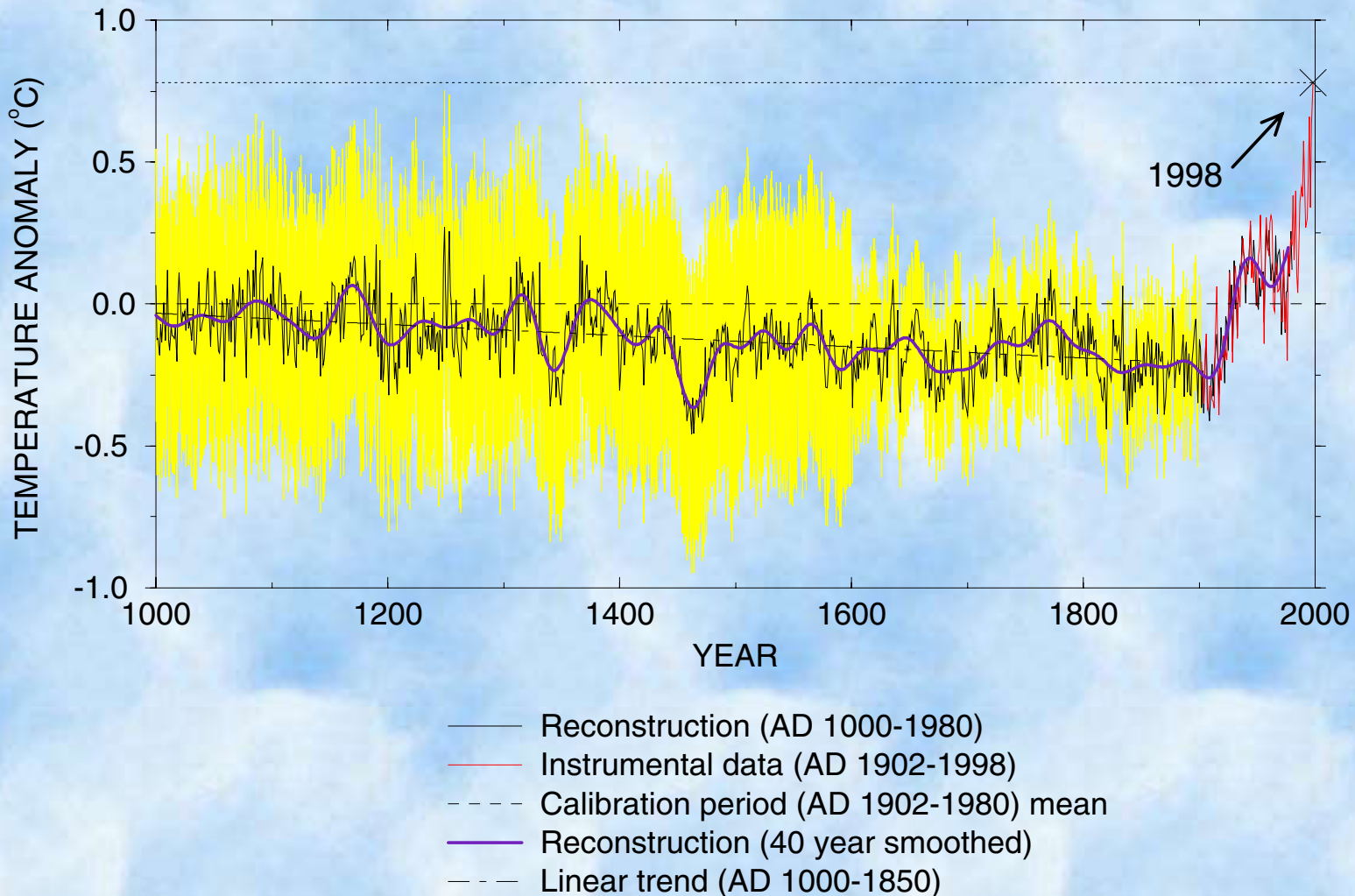
Global carbon dioxide concentration over the last thousand years

CHANGE IN GLOBAL MEAN SURFACE TEMPERATURE 1855-2004



Climate Research Unit, University of East Anglia, UK

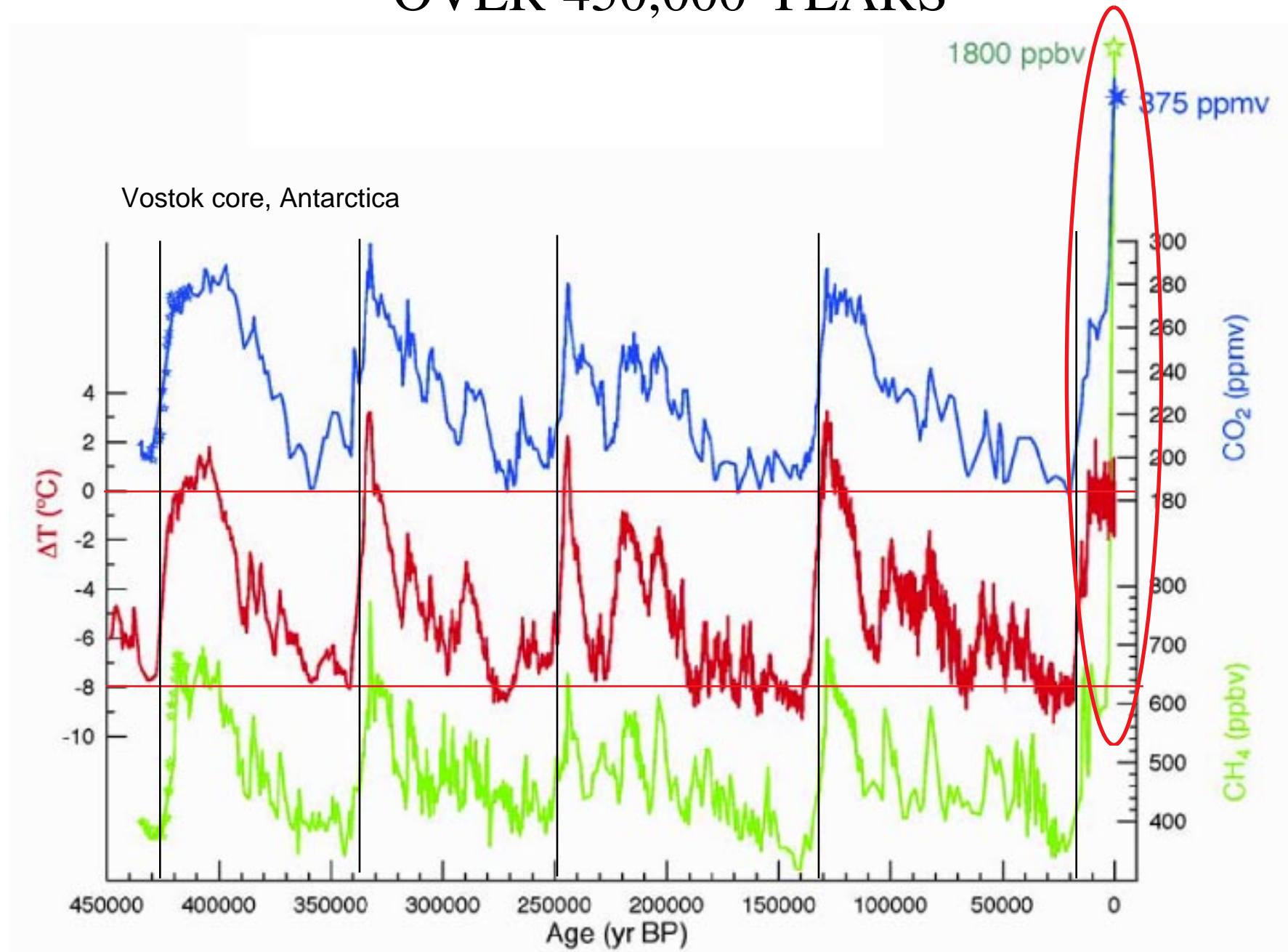
THE TEMPERATURE'S RISING



Northern Hemisphere temperature trend (1000-1998), from tree-ring, coral, and ice-core proxy records as calibrated by instrumental measurements.

Mann et al., Geophysical Research Letters, 1999

GREENHOUSE GASES AND TEMPERATURE OVER 450,000 YEARS

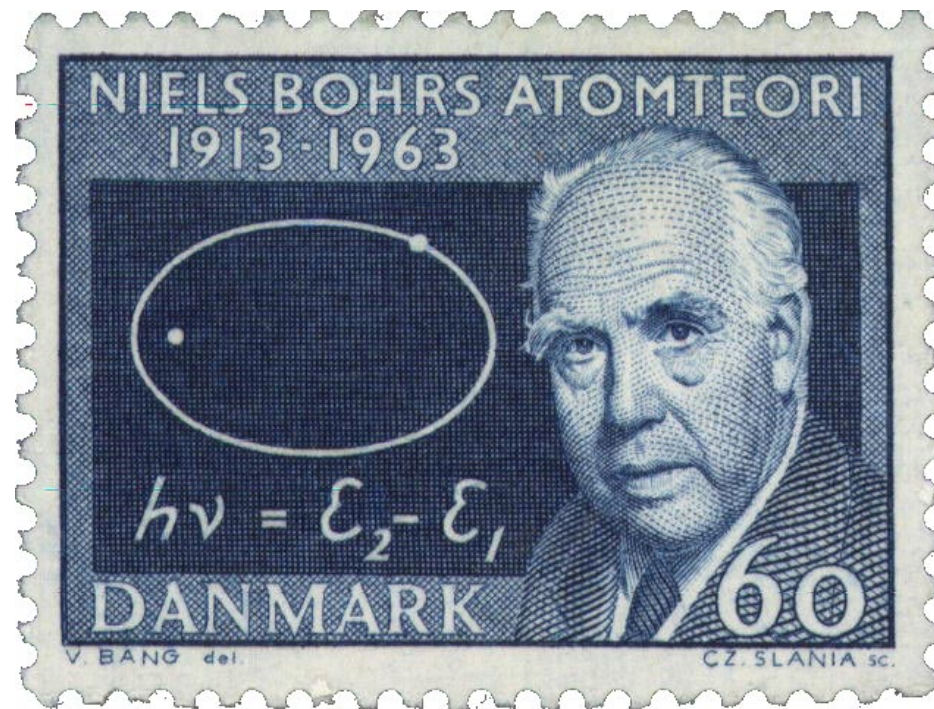


Modified from Petit et al., Nature, 1999

*Looking to the
Future . . .*



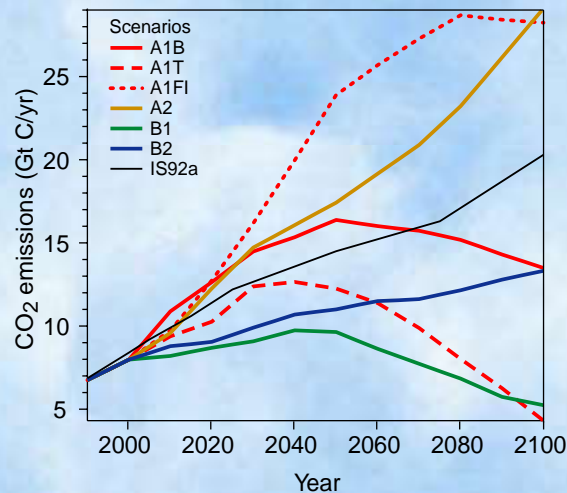
*Prediction is difficult,
especially about the future.*



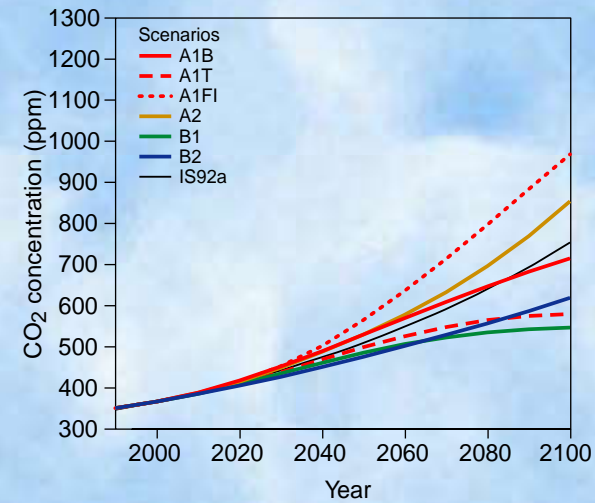
– Niels Bohr

PROJECTED CO₂ EMISSIONS AND CONCENTRATIONS AND GLOBAL TEMPERATURE AND SEA LEVEL, 2000-2100

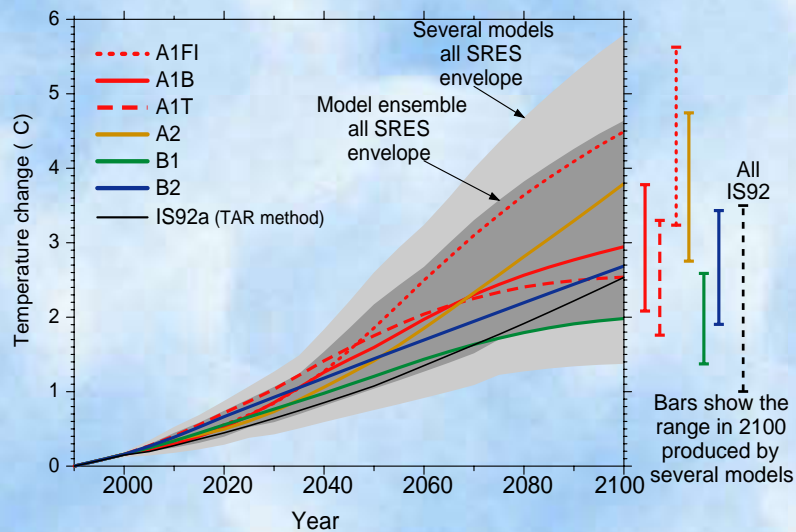
CO₂ emissions



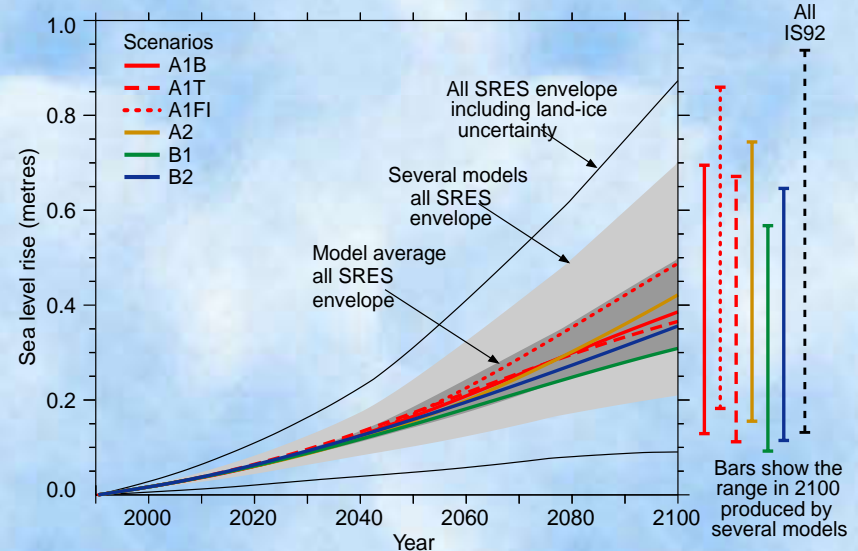
CO₂ concentrations



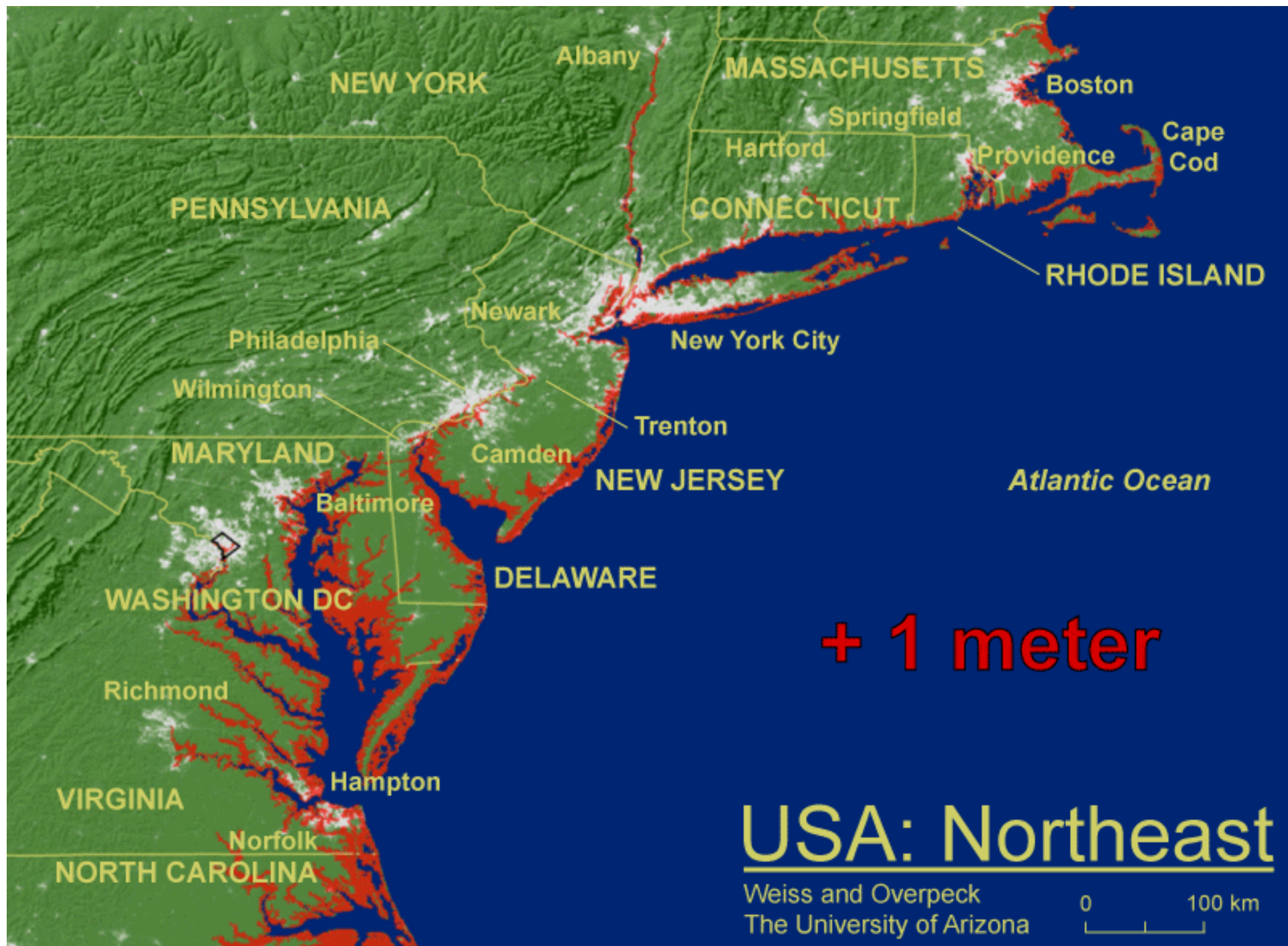
Temperature change

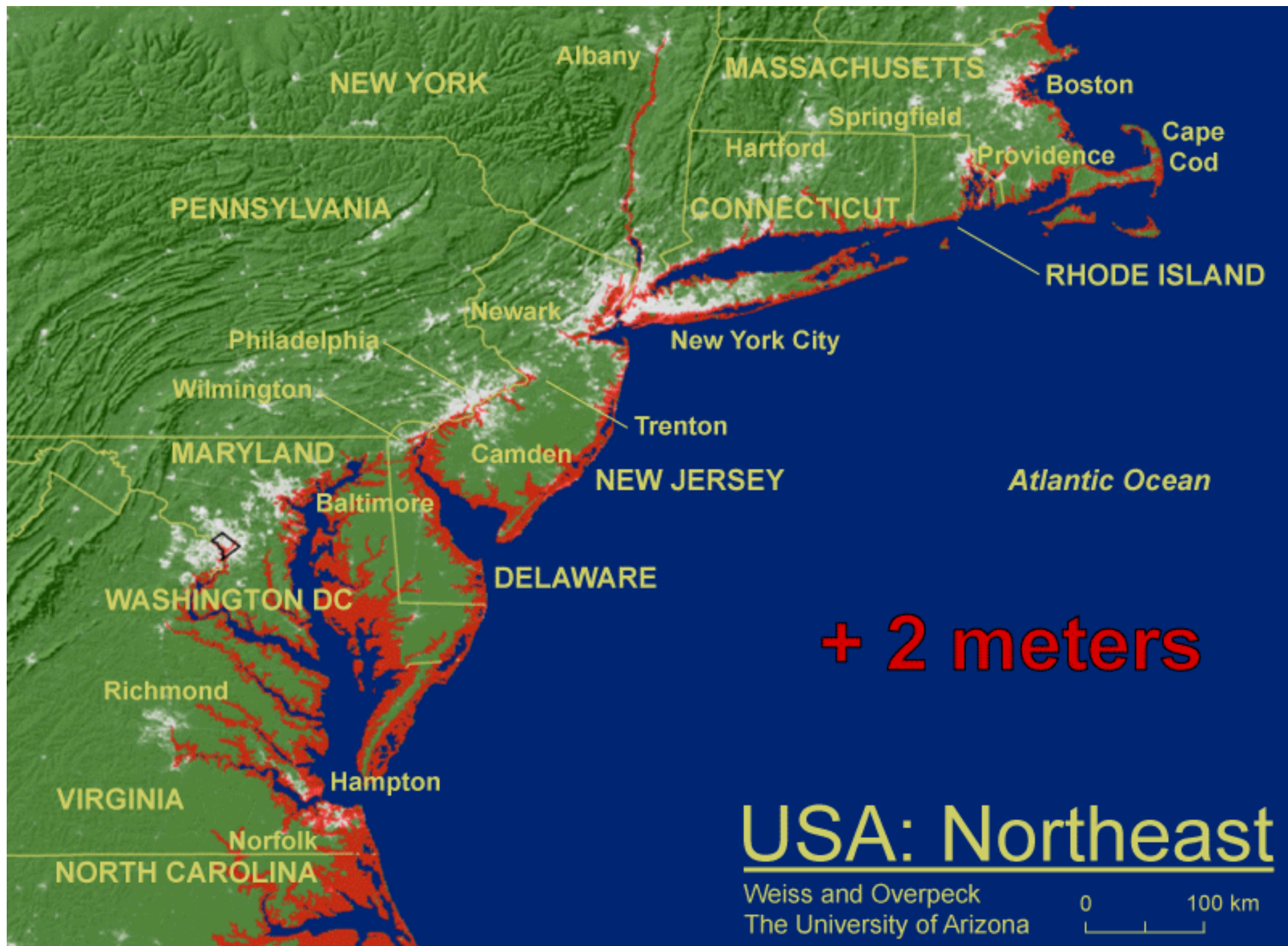


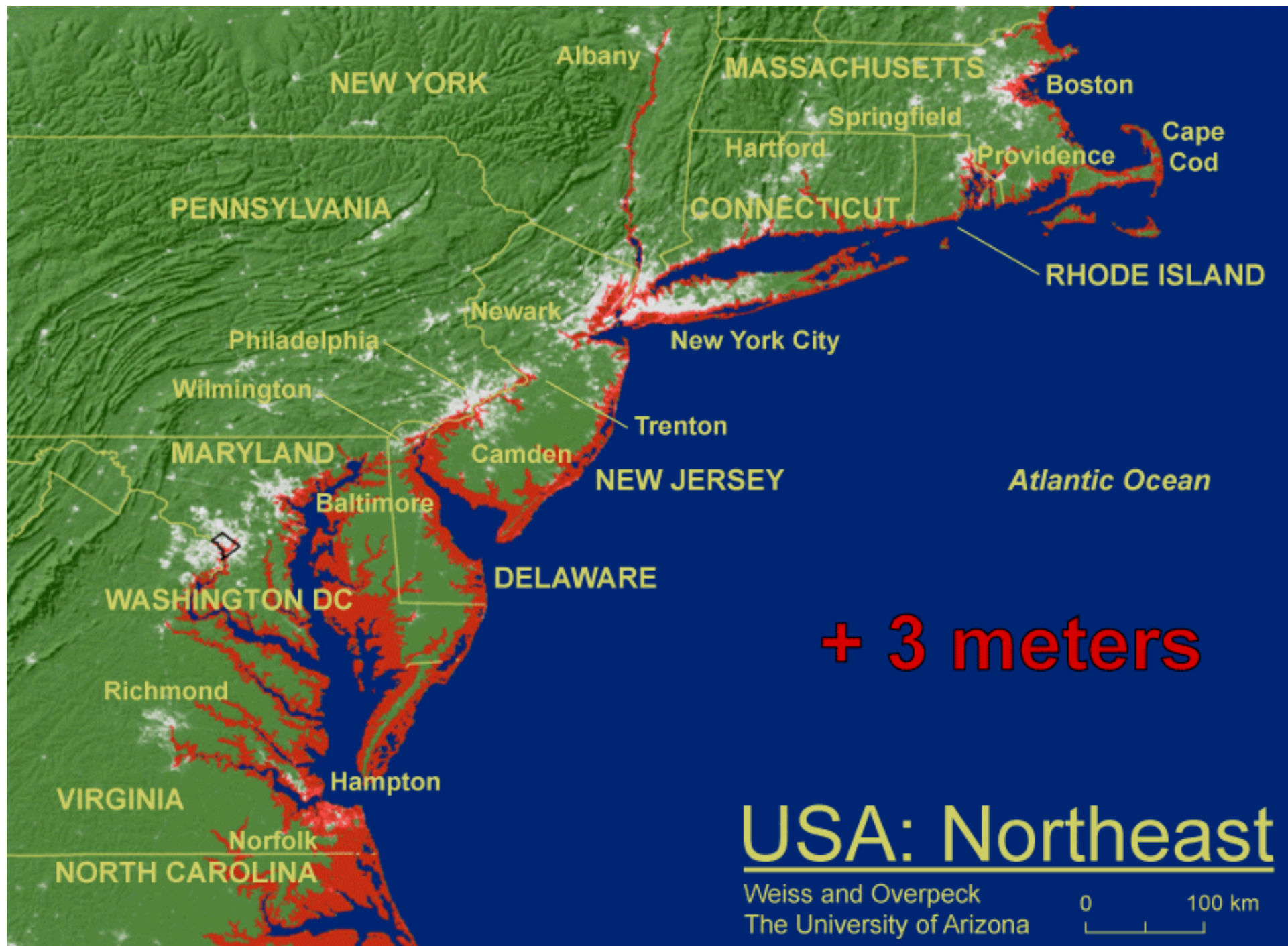
Sea level rise

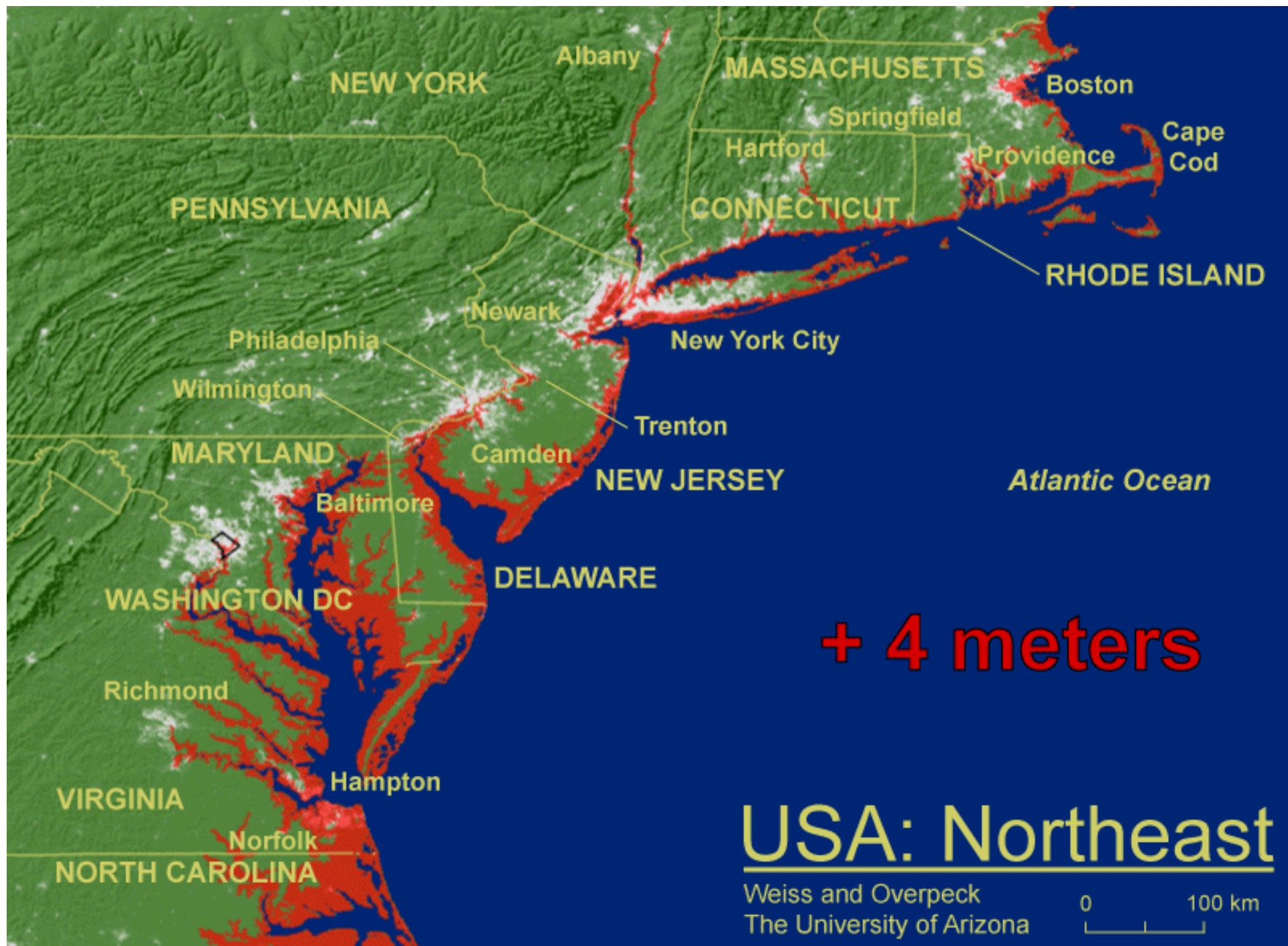


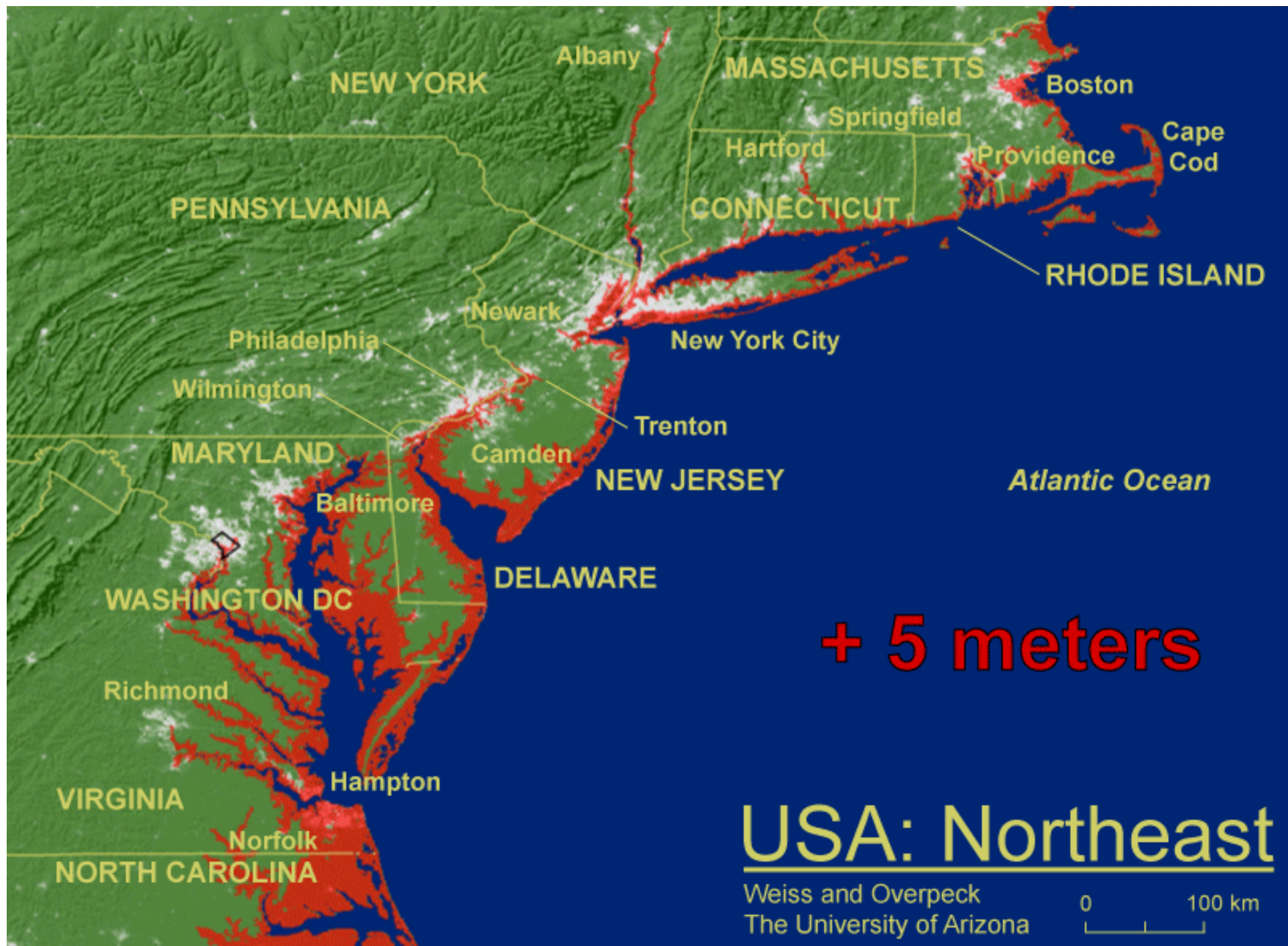


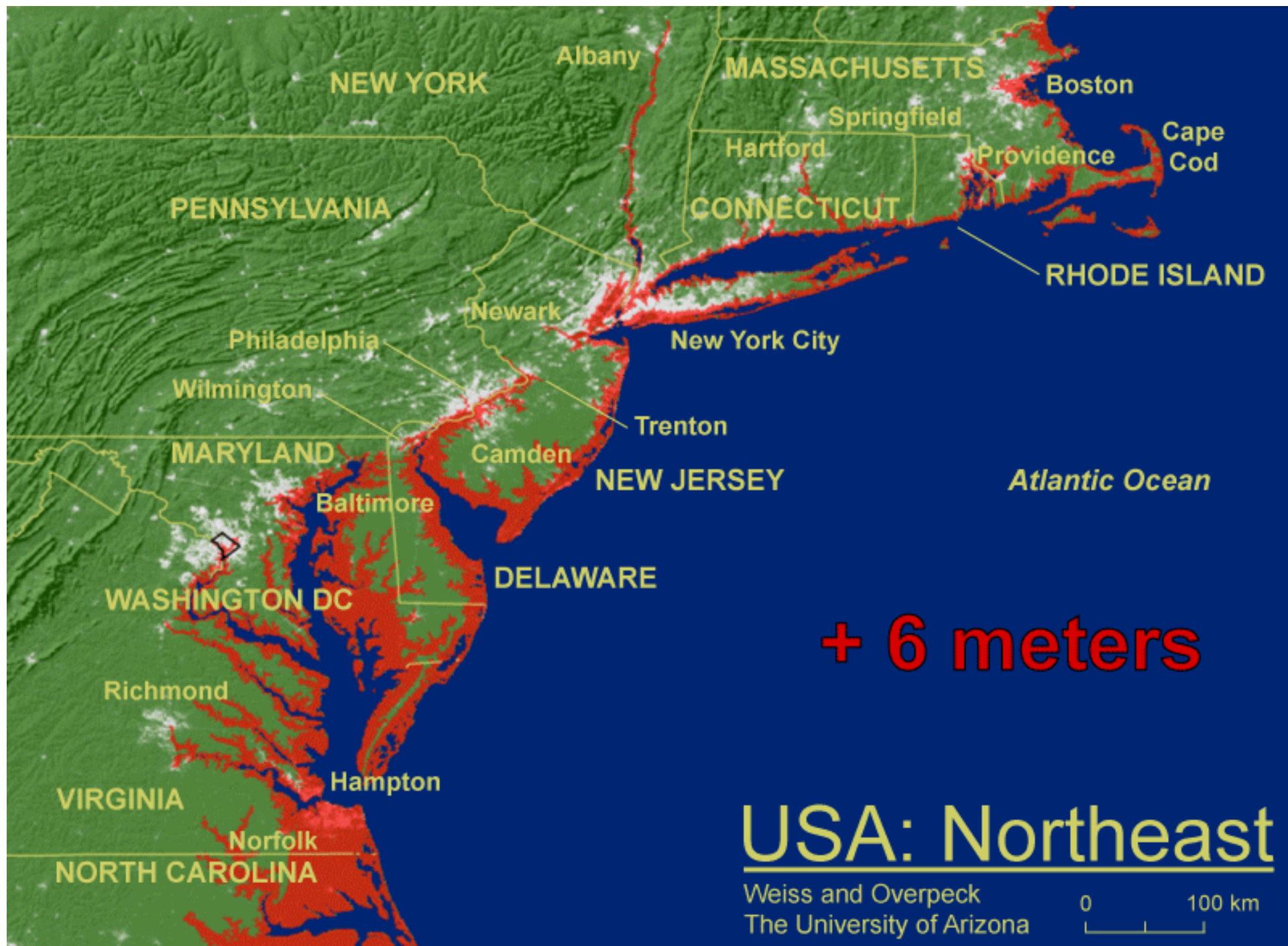














*"Gentlemen, it's time we gave some serious thought
to the effects of global warming."*

***WHERE IS ALL
THIS CO₂
COMING FROM?***

**WHO IS
RESPONSIBLE?**



HOW MUCH CARBON IS IN A GALLON OF GASOLINE?



1 lb?

2 lbs?

3 lbs!?



5 lbs!?!?



All of this carbon goes into the
atmosphere as carbon dioxide when
you burn the gasoline in your car.



THE MOST EFFECTIVE WAY TO
DOUBLE THE FUEL ECONOMY
OF A CAR . . .

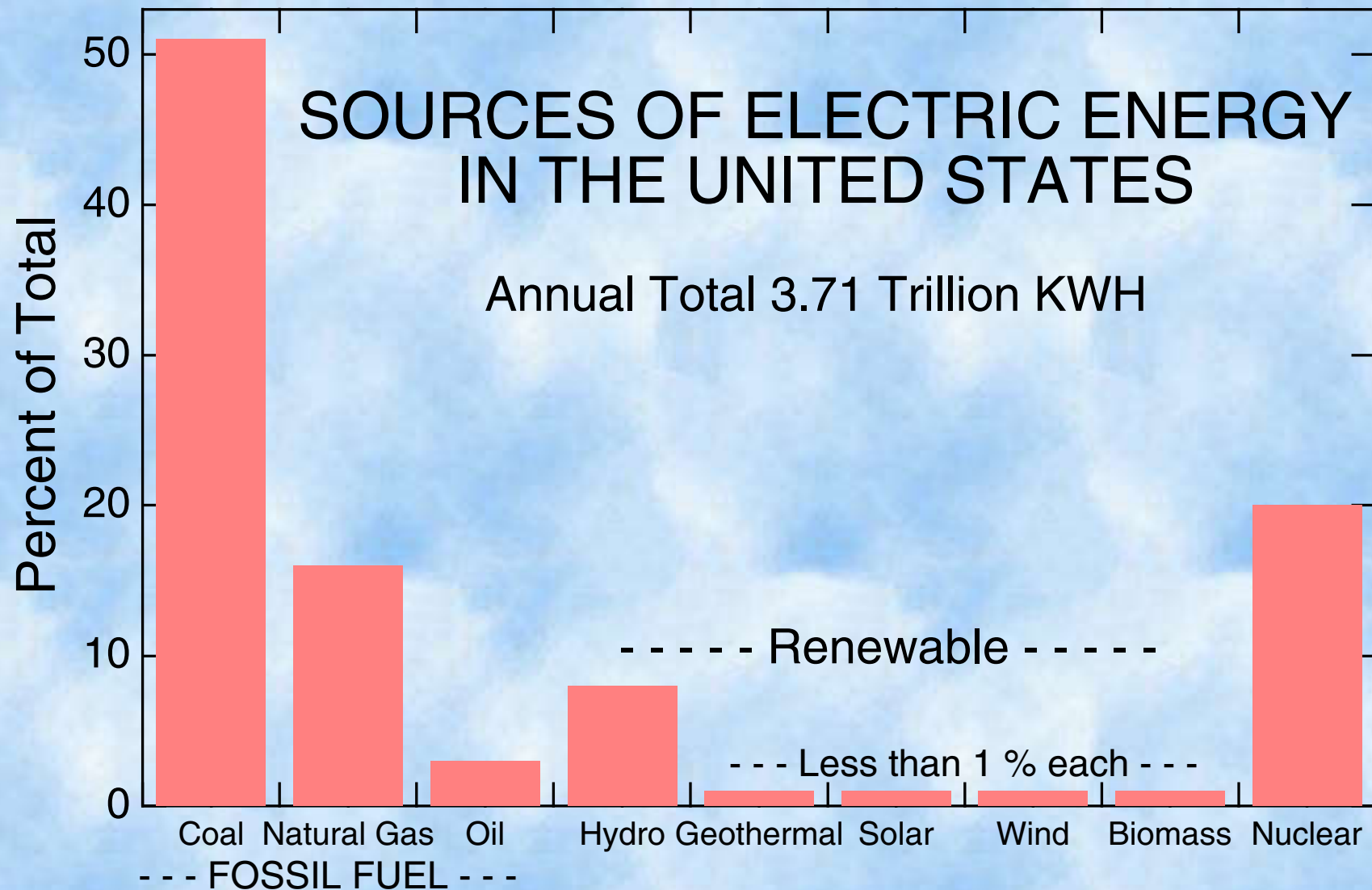
***IS TO PUT TWO
PEOPLE IN IT!***



CARPOOLING CAN SAVE MORE THAN GAS

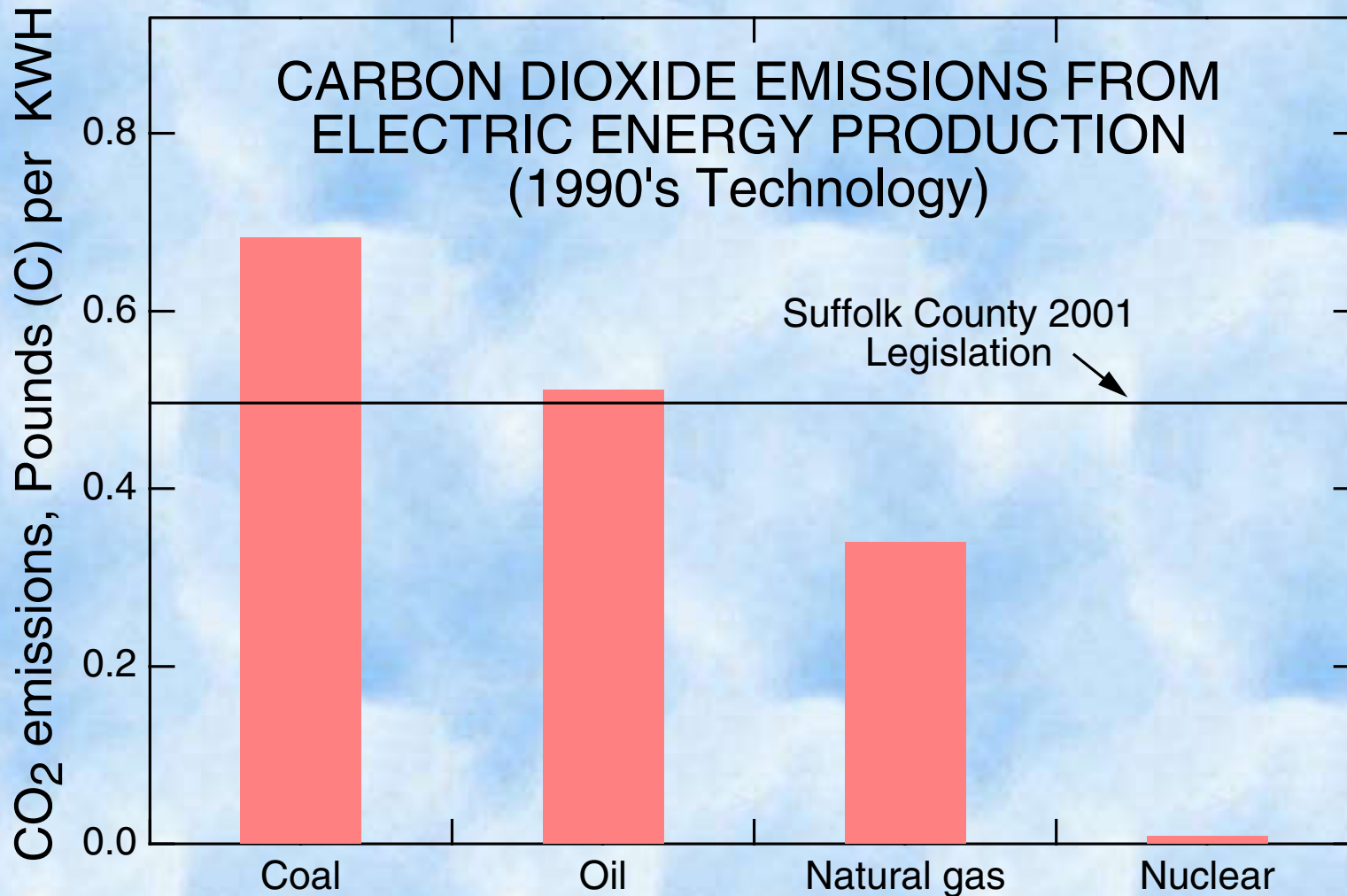


WHERE DOES YOUR ELECTRIC ENERGY COME FROM?



On Long Island most electric energy derives from combustion of oil.

YOUR FAMILY'S CONTRIBUTION TO THE GREENHOUSE EFFECT



A typical household using 1000 kilowatt hours of electricity per month is responsible for emission of 3 tons of carbon a year in the form of carbon dioxide.

How much does your household contribute?

YOUR CONTRIBUTION TO THE GREENHOUSE EFFECT

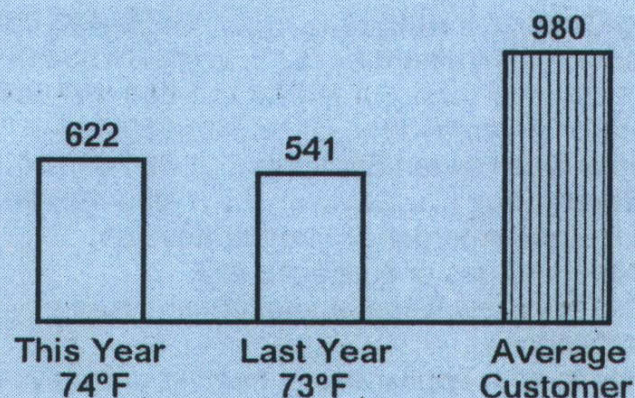
ELECTRIC SUPPLY AND DELIVERY FROM LIPA

Meter Readings Meter # 15790134

Jul 24 93155 Actual
Jun 26 92533 Actual

Use 28 Days 622 KWH

Comparisons KWH



Cost Rate 880 - Water and Home Heating

Basic Service: 28 Days @ 17.90¢	\$5.01
Use: 233 KWH @ 12.49¢	29.10
140 KWH @ 13.67¢	19.14
249 KWH @ 9.78¢	24.35
Excess Fuel Price Surcharge	4.28
PILOTs and Credits	1.40
Shoreham Credit	-.59
Sales Tax: @ 1%	.83
Total	\$83.52



Jul 25, 2001

Date

927 20 1805 3 5

Account Number

1-800-490-0025

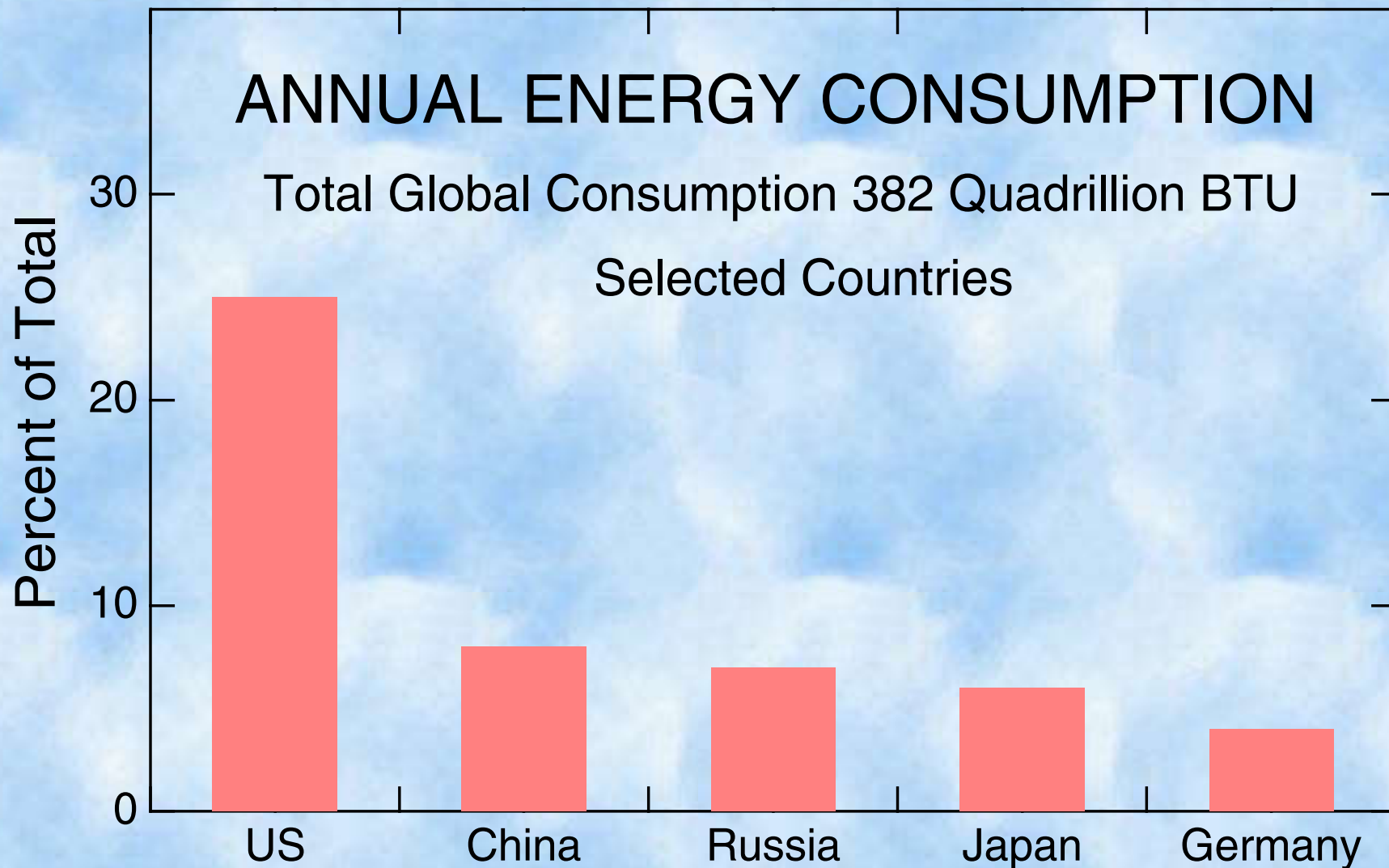
Any Questions?

See Back Of Bill

Service Problems

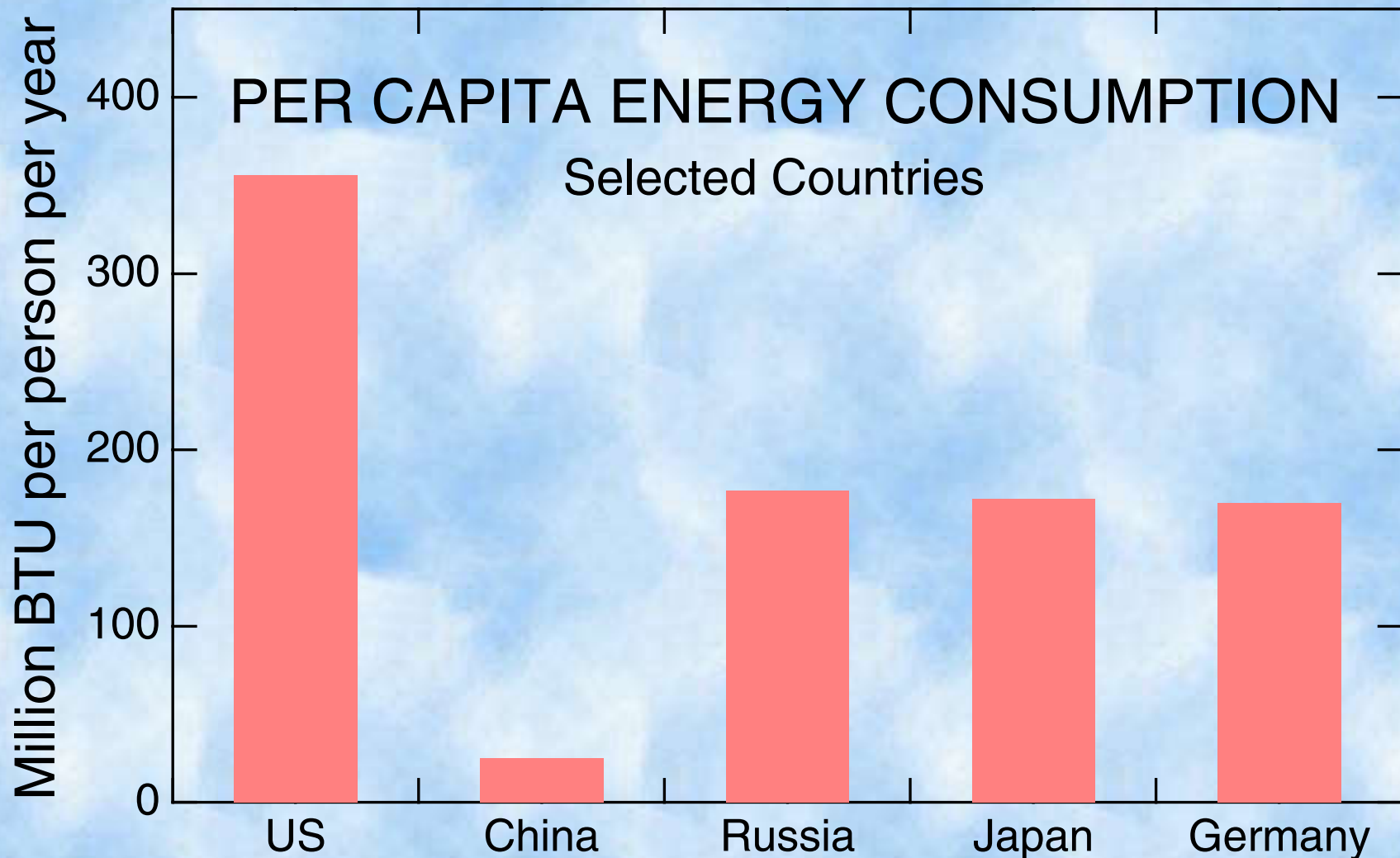
At half a pound of carbon per KWH, the average household is responsible for emission of 500 pounds of carbon a month .

WHAT COUNTRY USES THE MOST ELECTRIC POWER?



No surprise. It's the United States.

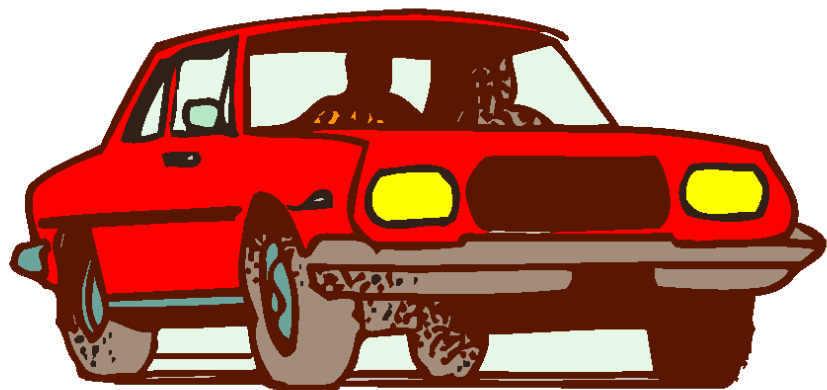
WHAT COUNTRY USES THE MOST ELECTRIC POWER *PER CAPITA*?



No surprise. It's the United States again.

WHERE IS THIS CARBON DIOXIDE COMING FROM?

WE ARE ALL RESPONSIBLE.



Burning a gallon of gasoline in your car puts 5 pounds of carbon in the atmosphere as carbon dioxide (CO_2), and it will stay there for decades — maybe a century!

Other sources are home heating and electric power production.



Global Atmosphere, Global Warming

QUESTIONS ABOUT GLOBAL WARMING

- IS IT REAL?
- IS IT IMPORTANT?
- WHAT IS IT DUE TO?
- HOW MUCH MORE CAN WE EXPECT?
- ARE WE SEEING JUST THE TIP OF THE ICEBERG?



***RESEARCH IS HELPING
TO ANSWER THESE QUESTIONS.***

www.ecd.bnl.gov/steve